

PA6.6/6 – Polyamide 6.6/6 PA6.6/6 GF30 FR

AKROMID® C3 GF 30 1 FR natural (7207)

Tensile modulus

10500 MPa

1 mm/min

ISO 527-2

Stress at break

150 MPa

5 mm/min

ISO 527-2

Charpy impact strength

76 kJ/m²

23°C

ISO 179-1/1eU

AKROMID® C3 GF 30 1 FR natural (7207) is a 30 % glass fibre reinforced, heat stabilized and halogenfree flame retardant polyamide 6.6/6 - Blend.

Typical applications

Components in mechanical engineering and the automotive industry where good flowability is required

Regulatory



Mechanical Properties

Tensile modulus (1 mm/min ISO 527-2) d.a.m.	10500 MPa
Stress at break (5 mm/min ISO 527-2) d.a.m.	150 MPa
Strain at break (5 mm/min ISO 527-2) d.a.m.	3 %
Charpy impact strength (23°C ISO 179-1/1eU) d.a.m.	76 kJ/m ²



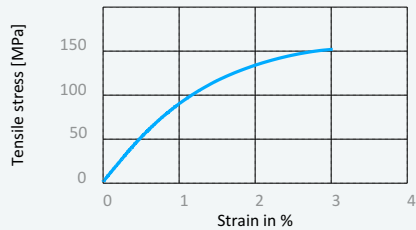
Thermal Properties

Temperature of deflection under load HDT/A (1,8 MPa ISO 75)	225 °C
Temperature of deflection under load HDT/B (0,45 MPa ISO 75)	251 °C
Temperature of deflection under load HDT/C (8 MPa ISO 75)	168 °C
Melting temperature (DSC, 10K/min DIN EN 11357-1)	262 °C
Ball pressure test (IEC 60695-10-2)	>210 °C
Temperature index for 50% loss of tensile strength after 5.000h (5.000 h IEC 60216)	155 °C
Temperature index for 50% loss of tensile strength after 20.000h (20.000 Std. IEC 60216)	130 °C

Disclaimer:

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Stress strain chart at 23°C



Flammability

Burning rate (UL 94)	
0,4mm Wall thickness	V0 Class
0,8mm Wall thickness	V0 Class
1,6mm Wall thickness	V0 Class
3,2mm Wall thickness	V0 Class

Burning rate 5V (UL 94)	
1,6mm Wall thickness	5VA Class
3,2mm Wall thickness	5VA Class

GWFI (IEC 60695-2-12)	
0,4mm Wall thickness	960 °C
0,8mm Wall thickness	960 °C
1,6mm Wall thickness	960 °C
3,2mm Wall thickness	960 °C

GWIT (IEC 60695-2-13)	
0,4mm Wall thickness	775 °C
0,8mm Wall thickness	750 °C
1,6mm Wall thickness	750 °C
3,2mm Wall thickness	800 °C

HWI (UL 746A)	
0,4mm Wall thickness	0 PLC
0,8mm Wall thickness	0 PLC
1,6mm Wall thickness	0 PLC
3,2mm Wall thickness	0 PLC

HAI (UL 746A)	
0,4mm Wall thickness	0 PLC
0,8mm Wall thickness	0 PLC
1,6mm Wall thickness	0 PLC
3,2mm Wall thickness	0 PLC

Burning rate (<100 mm/min) (> 1 mm Thickness FMVSS 302)	+
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General properties

Density (23°C ISO 1183)	1,37 g/cm ³
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Electrical Properties

Comparative tracking index (Test liquid A IEC 60112)	>600 V
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Dielectric strength (3 mm IEC 60243)	24 kV/mm
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Inclined-Plane Tracking, IPT (ASTM D2303-13)	1 kV
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High voltage tracking rate, HVTR (UL 746A)	0 PLC
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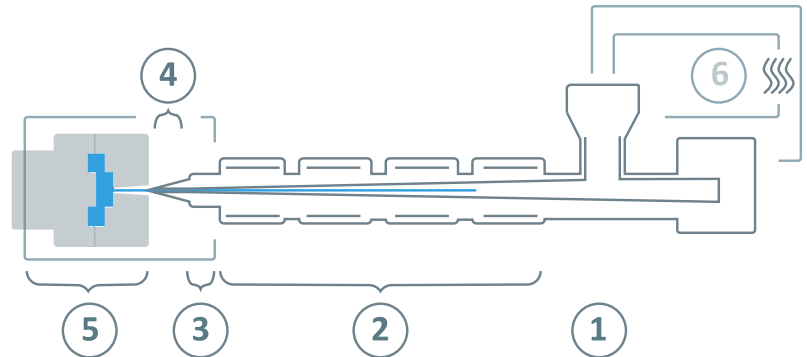
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Processing information

The listed values are recommendations. Higher values should be used for higher glass loadings. We recommend only dehumidifying or vacuum dryers. Extensive drying can cause filling problems and surface defects.



⑥	Drying time	2 - 4 h
	Drying temperature ($\tau \leq -30^{\circ}\text{C}$)	80°C
	Processing moisture	0,02 - 0,08%
①	Feed section	60 - 80°C
②	Temperature zone 1 - Zone 4	260 - 290°C
③	Nozzle temperature	260 - 300°C
④	Melting temperature	280 - 290°C
⑤	Mold temperature	60 - 100°C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	30 - 100 bar
	Injection speed	medium
	Screw speed	5 - 10 m/min

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